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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/481,503	01/12/2000	Koichiro Komatsu	105173	5711

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EXAMINER

ROSENBERGER, RICHARD A

ART UNIT PAPER NUMBER

2877

DATE MAILED: 04/14/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/481,503

Applicant(s)

KOMATSU ET AL.

Examiner

Richard A Rosenberger

Art Unit

2877

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 and 3-12 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) 1, 3-5, 7-12 is/are allowed.
- 6) ☒ Claim(s) ____ is/are rejected.
- 7) ☒ Claim(s) 6 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, 3-5 and 7-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yonezawa (US 6,222,624) and Paul et al (US 6,166,393), In view of Uchida et al (US 4,881,268).

It is known in the art to perform a plurality of tests on an object under a plurality of measurement conditions; both references show this, with Yonezawa using different angles of illumination and Paul et al using, among others, different wavelengths of light (see column 8, lines 30-31). This allows different defects, which may not be detectable under some conditions, to be detected by another test; since each test under different conditions will be detecting a different set of errors, it would have been obvious to decide that a defect exists if any one of the different tests shows a detectable error; this obvious "any one" test is the logical equivalent of the claimed "logical OR". Although Uchida does not call the combining of the signals in unit 104 a "logical or", he describes it as such. In column 7, lines 36-44 describes a logical-or combination of several tests under different conditions. The "counterfeit-note signal" (unacceptable pattern) is generated when any one of the

signals is non-identifiable - the first signal OR the second signal OR the third signal; if the identifying units 103A-103C output a "non-identifiable" signal, NIA, NIB and NIC for 103A, 103B and 103C respectively, ("[i]f one of the money type identifying units 103A to 103C . . . judges that the note is non-identifiable"), then the logical formula for the disclosed combination is NIA OR NIB OR NIC. Those in the art could thus be expected to implement this using a logical OR.

It would have been obvious to use this technique with any type of tests for which different conditions can be expected to detect, or be differently sensitive to, different defects in the object being inspected, and thus would have been obvious to use with another known tests than the particular tests shown by the references. Yonezawa, for instance makes measurements under two different inspection conditions, different angles of illumination (see column 7, lines 47 through column 8, line 10), which give different types of information. Should one or both of the two conditions show an error, it would be at least extremely obvious to decide that the tested object has an error, that is, the if one OR the other condition shows an error, the decision that there is an error is at least obviously made, and made by the process of using a logical OR in whatever manner it is referred to.

3. The remarks filed 6 February 2003 argue that the references do not show that "an image of the surface is formed by condensing specific diffracted light" (page 6, lines 1-2). This appears to be correct, and therefor claim 6 appears to contain allowable subject matter, but is objected to as being dependent upon an unallowed claim. The remarks allege that this limitation is found in claims 1, 11 and 12 (page 6, lines 2-3), but these claims are not so limited, reciting rather "At least one of specific diffracted light and scattered light". Thus the claims are met by scattered light, which is shown by the references, and are not limited to the argued "specific diffracted light". Claim 6, dependent from claim 1, sets forth that "said plurality of inspection conditions are each set in conformance to an order of diffracted light . . .", which limits the claim in the manner argued, and thus contains allowable subject matter.

4. The instant claims call for "a plurality of inspection conditions", which the different angles of illumination of Yonezawa are. The images obtained under these different inspection conditions are processed under the different inspection conditions. The instant claims do not set forth any details of the processing, and thus the arguments that Yonezawa processes the images by comparing them to other previously obtained images are not relevant to the instant claims, since the claims only call for processing the images to detector errors, which Yonezawa does.

5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

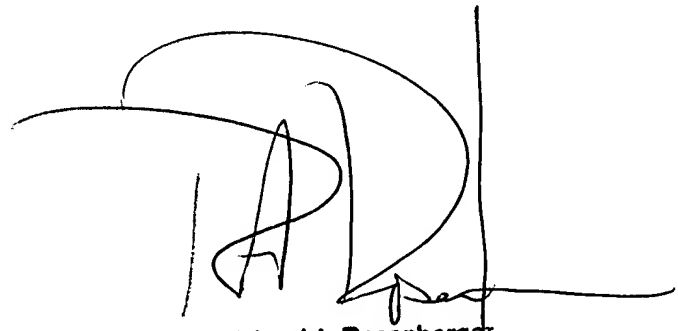
A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

6. Papers related to this application may be submitted to Group 2800 by facsimile transmission. The faxing of such papers must conform to the notice published in the Official Gazette, 1096 OG 30 (15 November 1989). The fax number is (703) 308-7722.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to R. A. Rosenberger whose telephone number is (703) 308-4804.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 308-0956.

R. A. Rosenberger
10 April 2003



Richard A. Rosenberger
Primary Examiner